

Q3
be used as third layer 44c is p⁺ boron-doped amorphous silicon.

IN THE CLAIMS

Please substitute amended claim 1 for pending claim 1 as follows:

- Q4
1. (Amended) A hybrid device comprising:
- a substrate;
 - a micro-spring interconnect formed on the substrate, the micro-spring interconnect including,
 - an elastic material that is initially fixed to a surface on the substrate including,
 - an anchor portion fixed to the substrate, and
 - a free portion; and
 - a sensor formed on the substrate, the sensor including an active layer and contacts, said active layer sensing light, said micro-spring interconnect and said sensor being integrated on the substrate.

Please substitute amended claim 11 for pending claim 11 as follows:

- Q5
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11. (Amended) The invention according to claim 10 wherein the elastic material is a stressed metal layer having sub-layers of differing stress gradients, wherein when the sacrificial layer is released from the passivation/release layer, the released portion moves out of a plane of the substrate.

Please substitute amended claim 13 for pending claim 13 as follows:

- Q6
Q7
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cont
13. (Amended) The invention according to claim 9, wherein the active layer is a three layer element, wherein a first layer is a n⁺-doped amorphous silicon, the first layer being one of, but not limited to n⁺ phosphorous-doped amorphous silicon and n⁺ arsenic-doped silicon;
- wherein a second layer is an intrinsic amorphous silicon;
 - wherein a third layer is a p⁺-doped amorphous silicon,

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the third layer being, but not limited to, p+ boron-doped amorphous silicon.

Please substitute amended claim 22 for pending claim 22 as follows:

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Cont
22. (Amended) A calibration/printing system comprising:
a sensor configuration including a sensor element integrated on a substrate with a plurality of micro-spring interconnects;

a light source aligned with the sensor configuration such that at least a portion of the light from the light source is sensed by the sensor and at least a first of the micro-spring interconnects is in physical contact with a portion of the light source;

a driver chip aligned with the sensor configuration and the light source such that at least a second of the micro-spring interconnects is in physical contact with a portion of the driver chip, and a communication path is formed between the light source and the driver chip by the at least first and second micro-spring interconnects.

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Please substitute amended claim 23 for pending claim 23 as follows:

23. (Amended) The invention according to claim 22 wherein the driver chip further includes:

a comparator for comparing a sensor readout current from the sensor and a reference current;

a converter arrangement which converts the output of the comparator into digital data representing characteristics of the light source;

a set of low frequency shift registers configured to receive and store the digital data;

an activation signal selectively supplied to the light source to selectively emit light therefrom;

a driver designed to interpret the digital data as activation signal correction information for the activation signal;

a high frequency shift-register configured to receive and store digital image data from a source external to the driver chip; and

an enable/disable output from the high frequency shift-register to selectively supply the activation signal and light source correction information to the light source, wherein an amount of light emitted by the light source is controlled.

Please substitute amended claim 26 for pending claim 26 as follows:

26. ~~A hybrid device comprising:~~
~~a micro-spring interconnect structure; and~~
~~at least two devices electrically connected by the~~
~~interconnect structure wherein,~~
~~one of the devices is a sensor, the sensor~~
~~including an active layer and contacts, said active layer sensing~~
~~light, and~~
~~another one of the devices is at least one of a~~
~~single light source, an array of lasers, and an array of light~~
~~emitting diodes (LEDs), positioned to emit light at least~~
~~partially through the sensor.~~

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